Claimed is:

1. A material remediation system used with a pump having a material inlet and a material outlet, the system comprising:

a float having a specific gravity less than material not being removed but greater than material being removed; and

a tube having an outlet end portion and an inlet end portion, the outlet end portion operatively connected to the material inlet of the pump, and the inlet end portion operatively connected to the float so that substantially only material being removed can enter the inlet end portion;

wherein the material being removed is pumped through the tube and the pump, and is discharged through the material outlet.

2. The material remediation system of claim 1 further comprising a means for providing power to the system.

3. The material remediation system of claim 2 wherein the means for providing power to the system is a windmill.

4. The material remediation system of claim 2 wherein the means for providing power to the system is a peristaltic pump.

5. The material remediation system of claim 1 further comprising a tank into which removed material is directed.

6. The material remediation system of claim 1 wherein the material being removed is a hydrocarbon.

7. The material remediation system of claim 1 wherein the float comprises HDPE.

8. The material remediation system of claim 3 wherein, the windmill has a sliding stroke reducer, wherein the stroke reducer comprises:

a first reducer component having an elongated shape with a longitudinally-disposed slot therein; and

a second reducer component having a plurality of openings therein;

wherein the first reducer component is in functional cooperation with the second reducer component so that the slot can be aligned with at least one second reducer component opening so that upon insertion of a pin in the at least one opening locks the first reducer component in place with respect to the second reducer component.

9. The material remediation system of claim 1 further comprising a transport pipe to transport removed material out of the system.

10. The material remediation system of claim 9 wherein the transport pipe also functions as a pump rod.

11. The material remediation system of claim 1 wherein the material being removed is only pumped through the tube and pump when it reaches a predetermined thickness.

12. The material remediation system of claim 11 wherein the predetermined thickness is in the range of about 0.25 inches to about 0.75 inches.

13. The material remediation system of claim 1 further comprising one or more sensors to monitor the system and/or environmental parameters.

14. The material remediation system of claim 13 wherein at least one of the one or more sensors is monitored remotely.

15. The material remediation system of claim 1 further comprising one or more remotely operated switches.

16. A method of material remediation comprising:

positioning a float in a layer of material to be removed wherein the layer of material being removed is floating on top of a layer of material not being removed;

attaching a tube to the float so it only penetrates material being removed;

attaching an outlet end portion of the tube to an inlet of a pump; and

actuating the pump to extract the material being removed through the tube;

wherein the float is made of a material having a specific gravity less than material not being removed but greater than material being removed.

17. The method of claim 16 further comprising:

gravity draining the material being removed to a tank.

18. The method of claim 16 further comprising providing power to actuate the pump with a windmill or peristaltic pump.

19. The method of claim 16 wherein the material being removed is a hydrocarbon.

20. The method of claim 16 wherein the material is only extracted when it reached a predetermined thickness.

21. The method of claim 20 wherein the predetermined thickness is in the range of about 0.25 inches to about 0.75 inches.

22. A sliding stroke reducer comprising:

a first reducer component having an elongated shape with a longitudinally-disposed slot therein; and

a second reducer component having a plurality of openings therein;

wherein the first reducer component is in functional cooperation with the second reducer component so that the slot can be aligned with at least one second reducer component opening so that upon insertion of a locking element in the at least one opening locks the first reducer component in place with respect to the second reducer component.

23. A windmill comprising a sliding stroke reducer according to claim 22.